

REMARKS

The Examiner is thanked for the thorough examination of the present application. The FINAL Office Action, however, continued to reject all pending claims 1-5 and 11-13. Applicant has canceled previously withdrawn claims 7-10 and 14-15. Applicant has also amended independent claims 1 and 11. The amendment to claim 11 merely incorporates the subject matter previously presented in claim 12, and claim 12 has been correspondingly canceled. As such, the amendment raises no new issues for consideration and should be entered. Applicant respectfully request reconsideration and withdrawal of the rejections for at least the reasons set forth herein.

Response To Claim Rejections Under 35 U.S.C. §103

Claims 1-5 and 11-13 stand rejected under 35 U.S.C. §103 as allegedly being unpatentable over Dunne (U.S. Patent No. 5,923,260) and Schroder (U.S. Patent No. 6,313,464). Applicant respectfully traverses this rejection because all features of the claimed invention are not disclosed by the combination of Dunne and Schroder (even assuming that these references may be properly combined).

It is well established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all elements/features/steps of the claim at issue. See, e.g., *In Re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988), and *In re Keller*, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981). With regard to the presently pending claims, Dunne and Schroder fail to disclose all of the claimed features

Independent claim 1, as amended, recites:

1. A method for light signal reception, comprising the steps of:
 - (A) transmitting a light beam to a target;
 - (B) receiving the light beam reflected from the target and outputting a first received signal, wherein the received signal has at least one pulse;
 - (C) *eliminating pulses smaller than a reference voltage level in the first received signal and determining whether a pulse is higher than the reference voltage level in the first received signal without processing by a gain circuit;***
 - (D) outputting the pulse to a processor to execute operational processes when the pulse in the first received signal is higher than the reference voltage level;
 - (E) repeating the steps (A) and (B) to obtain a second received signal when, in the first received signal, no pulse is higher than the reference voltage level; and
 - (F) amplifying the second received signal and outputting to the processor to determine the distance between the target and a ranger finder according to the pulse or the amplified second received signal.

(Emphasis added.) Independent claim 1 is allowable for at least the reason that the combination of Dunne in view of Schroder does not disclose, teach, or suggest the features that are emphasized above. More specifically, Dunne does not teach to determine whether a pulse is higher than the reference voltage level in the first received signal without processing by a gain circuit.

Line 48 in col. 7 to line 13 in col. 8 (relied on by the Office Action), states: “simply adjusting the amplifier gain for the signals fed into the comparator 130 will change the overall sensitivity of the receiver 116” and “processor 112 disables the gain and/or threshold section elements discussed above as that the settings of receiver 116 gains and thresholds are restored to normal”. Namely, Dunne teaches that signals should be both amplified and compared, such as amplification means 128 and the comparator 130, to obtain the target distance even the receiver 116 gains and thresholds are restored to normal. Hence, Dunne does not teach the claimed feature of “determining whether a pulse is higher than the reference voltage level in the first received signal without processing by a gain circuit,” as expressly recited in claim 1.

Similarly, as shown in Fig. 4 of Schroder, because there is no channel selection circuit to selective output signal, the signals from detector 17 should be both amplified by the amplifier 30 and compared by the processor, to obtain the result even the amplifier 30 is adjusted to a low gain. Hence, Schroder does not teach the claimed feature of “determining whether a pulse is higher than the reference voltage level in the first received signal without processing by a gain circuit.”

Consequently, the combination of Dunne in view of Schroder (even if properly combined) does not disclose all of the features of claim 1, and the rejection should be withdrawn.

Because independent claim 1 is allowable over the prior art of record, its dependent claims 2-5 are allowable as a matter of law, for at least the reason that these dependent claims contain all features/elements/steps of their respective independent claim 1. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Additionally and notwithstanding the foregoing allowability of these dependent claims, the dependent claims recite further features and/or combinations of features (as is apparent by examination of the claim itself) that are patentably distinct from the prior art of record. Hence, there are other reasons why this dependent claim is allowable.

With regard to independent claim 11, this claim recites:

11. A device, comprising:
a transmitter transmitting a light beam to a target;
a receiver receiving the light beam reflected from the target and outputting a corresponding received signal;
a comparison circuit having a reference voltage level, and receiving the received signal to determine whether a pulse is higher than the reference voltage level, in the received signal;
a gain circuit receiving the received signal from the receiver to amplify and output a corresponding amplified signal;
a processor receiving and processing the pulse or the amplified signal to determine the distance between the target and a ranger finder, and

a channel selection circuit selectively outputting one of the pulse from the comparison circuit and the amplified signal from the gain circuit to the processor according to a channel selection signal.

(*Emphasis added.*) Independent claim 11 is allowable for at least the reason that the combination of Dunne in view of Schroder does not disclose, teach, or suggest the features that are highlighted above. More specifically, Dunne does not teach a channel selection circuit selectively outputting one of the pulse from the comparison circuit and the amplified signal from the gain circuit to the processor according to a channel selection signal as claimed in claim 11.

Line 48 in col.7 to line 13 in col. 8 (relied on by the Office Action), states: “simply adjusting the amplifier gain for the signals fed into the comparator 130 will change the overall sensitivity of the receiver 116” and “processor 112 disables the gain and/or threshold section elements discussed above as that the settings of receiver 116 gains and thresholds are restored to normal”. Namely, Dunne teaches that signals should be both amplified and compared, such as amplification means 128 and the comparator 130, to obtain the target distance even the receiver 116 gains and thresholds are restored to normal, rather than selectively outputting one of the pulse from the comparison circuit and the amplified signal from the gain circuit to the processor according to a channel selection signal. Hence, Dunne does not teach the channel selection circuit as defined in claim 11.

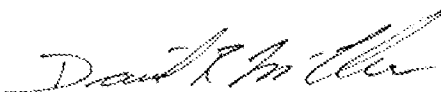
Similarly, as shown in Fig. 4 of Schroder, because there is no channel selection circuit to selective output signal, the signals from detector 17 should be both amplified by the amplifier 30 and compared by the processor, to obtain the result even gain of the amplifier 30 can be adjusted to a low gain, rather than selectively outputting one of the pulse from the comparison circuit and the amplified signal from the gain circuit to the processor according to a channel selection signal. Hence, Schroder does not teach the channel selection circuit as claimed in claim 11.

Consequently, the combination of Dunne in view of Schroder does not render claim 11 obvious, and the rejection should be withdrawn.

Because independent claim 11 is allowable over the prior art of record, its dependent claim 13 is allowable as a matter of law, for at least the reason that these dependent claims contain all features/elements/steps of their respective independent claim 11. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Additionally and notwithstanding the foregoing allowability of these dependent claims, the dependent claims recite further features and/or combinations of features (as is apparent by examination of the claim itself) that are patentably distinct from the prior art of record. Hence, there are other reasons why this dependent claim is allowable.

No fee is believed to be due in connection with this amendment and response. If, however, any fee is deemed to be payable, you are hereby authorized to charge any such fee to Deposit Account No. 20-0778.

Respectfully submitted,

By: 

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